

# Pipeline Replacement Design and Construction Management for Coastside County Water District

## Half Moon Bay, CA



Coastside County Water District's (CCWD's) primary potable water transmission main connecting to the southern half of their service area included a section of 10-inch, 1940's era welded steel pipe attached to the historic Main Street Bridge, which spans Pilarcitos Creek. This section of the pipe was at the end of its useful service life and needed to be replaced. It was unknown when the City of Half Moon Bay would retrofit or replace the historic bridge and therefore CCWD determined it would be most cost-effective to relocate the pipeline so as not to interfere with a future bridge project.

EKI evaluated multiple alternatives to replace the pipe including a variety of trenchless technologies to cross a new pipe under the creek and pipe bridge alternatives to cross over the creek. Ultimately, EKI recommended installing the new pipe under Pilarcitos Creek using horizontal direction drilling (HDD).

EKI provided design services for the replacement of the existing 10-inch water main that crosses Pilarcitos Creek with approximately 420 linear feet of 20-inch diameter high density polyethylene water pipeline installed by HDD, approximately 700 linear feet of 16-inch and 160 linear feet of 6-inch ductile iron pipeline installed using open trench methods, and replacement of 11 service connections. EKI also performed the following:

- Prepared all technical design documents including opinions of probable cost, specifications, and drawings.
- Provided assistance with securing easements from private property owners, secured environmental permits, and provided support during the bidding process.
- Provided construction management services including inspection, public outreach, project administration, dispute resolution, and change order negotiations.
- Provided engineering services during construction including review of submittals, responding to RFIs, site visits to address contractor issues, and support services to client.
- Provided regular design and construction progress updates to the District's Board of Directors.